

CLAIMS:

1. Sample rate converter (12) for converting an input sample rate (F_{s1}) of a signal into an output sample rate (F_{s4}), wherein the sample rate converter (12) comprises a sample rate adapter (3,6) for, in response to a control signal (CTRL) having a first value, adapting an intermediate sample rate (F_{s2}) such that the output sample rate (F_{s4}) is larger than the input sample rate (F_{s1}), and for, in response to a control signal (CTRL) having a second value, adapting the intermediate sample rate (F_{s2}) such that the output sample rate (F_{s4}) is smaller than the input sample rate (F_{s1}).
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2. Sample rate converter (12) according to claim 1, wherein the sample rate adapter (3,6) comprises a variable sample rate decreaser (3) for variably decreasing the intermediate sample rate (F_{s2}).
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3. Sample rate converter (12) according to claim 2, wherein the sample rate converter (12) comprises a fixed sample rate increaser (1) for fixedly increasing the input sample rate (F_{s1}) and for generating a signal with the intermediate sample rate (F_{s2}) destined for the variable sample rate decreaser (3).
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4. Sample rate converter (12) according to claim 3, wherein the fixed sample rate increaser (1) increases the input sample rate (F_{s1}) with a fixed increasing factor K , with the variable sample rate decreaser (3) variably decreasing the intermediate sample rate (F_{s2}) with a variable decreasing factor L , with $L \leq K$.
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5. Sample rate converter (12) according to claim 4, wherein the sample rate converter (12) comprises a fixed sample rate decreaser (5) for fixedly decreasing a variably decreased intermediate sample rate (F_{s3}) with a fixed factor M and for generating a signal with the output sample rate (F_{s4}).
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6. Sample rate converter (12) according to claim 1, wherein the sample rate adapter (3,6) comprises a variable sample rate increaser (6) for variably increasing the intermediate sample rate (F_{s2}).
- 5 7. Sample rate converter (12) according to claim 6, wherein the sample rate converter (12) comprises a fixed sample rate increaser (1) for fixedly increasing the input sample rate (F_{s1}) and for generating a signal with the intermediate sample rate (F_{s2}) destined for the variable sample rate increaser (6).
- 10 8. Sample rate converter (12) according to claim 7, wherein the sample rate converter (12) comprises a fixed sample rate decreaser (5) for fixedly decreasing a variably increased intermediate sample rate (F_{s3}) and for generating a signal with the output sample rate (F_{s4}).
- 15 9. Method for converting an input sample rate (F_{s1}) of a signal into an output sample rate (F_{s4}), wherein the method comprises a step of, in response to a control signal (CTRL) having a first value, adapting an intermediate sample rate (F_{s2}) such that the output sample rate (F_{s4}) is larger than the input sample rate (F_{s1}), and of, in response to a control signal (CTRL) having a second value, adapting the intermediate sample rate (F_{s2}) such that
20 the output sample rate (F_{s4}) is smaller than the input sample rate (F_{s1}).
10. Computer program product for converting an input sample rate (F_{s1}) of a signal into an output sample rate (F_{s4}), wherein the computer program product comprises a function of, in response to a control signal (CTRL) having a first value, adapting an
25 intermediate sample rate (F_{s2}) such that the output sample rate (F_{s4}) is larger than the input sample rate (F_{s1}), and of, in response to a control signal (CTRL) having a second value, adapting the intermediate sample rate (F_{s2}) such that the output sample rate (F_{s4}) is smaller than the input sample rate (F_{s1}).
- 30 11. Apparatus (10) comprising a sample rate converter (12) for converting an input sample rate (F_{s1}) of a signal into an output sample rate (F_{s4}), wherein the sample rate converter (12) comprises a sample rate adapter (3,6) for, in response to a control signal (CTRL) having a first value, adapting an intermediate sample rate (F_{s2}) such that the output sample rate (F_{s4}) is larger than the input sample rate (F_{s1}), and for, in response to a control

signal (CTRL) having a second value, adapting the intermediate sample rate (F_{s2}) such that the output sample rate (F_{s4}) is smaller than the input sample rate (F_{s1}).